

ALVERTON COKE WORKS  
H.C. Frick Coke Company  
State Route 981  
Alverton  
Westmoreland  
Pennsylvania

HAER  
~~HAER~~ No. PA-288

HAER  
PA  
65-ALV  
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
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HISTORIC AMERICAN ENGINEERING RECORD

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Location: Route 981, Alverton, East Huntingdon Township, Westmoreland County, Pennsylvania

Date of Construction: 1878 - 1977

Builder: Donnelly and Dillinger, H.C. Frick Coke Co., Oliver K. Painter

Present Owner: unknown

Present Use: abandoned

Significance: The beehive coke ovens originally constructed at the site were among some 40,000 built in lower Westmoreland and Fayette counties between 1870 and 1920, in an area known as the Connellsville Coke Region. By-product ovens built near the steel mills of the lower Monongahela Valley superseded beehives in the World War I period, although periods of peak demand for coke during World War II and the Korean War inspired the refurbishing and refiring of some banks of beehives. In the 1970s, Oliver K. Painter financed the development of the MacDonald Smokeless Sole-Heated Non-Recovery Coke Oven to overcome intense pollution problems associated with beehive coking. At Alverton, he constructed eight such ovens and operated them until 1983, when the Pennsylvania Department of Environmental Resources concluded that the ovens were unable to meet clean air standards. These ovens, along with those at Shoaf operated by Max Noble, were the only attempts to retrofit beehive technology to bring it into compliance with current pollution regulations.

Project Information: In February, 1987, the Historic American Engineering Record (HAER) and the Historic American Buildings Survey (HABS) began a multi-year historical and architectural documentation project in southwestern Pennsylvania. Carried out in conjunction with America's Industrial Heritage Project (AIHP), HAER undertook a comprehensive inventory of Westmoreland County to identify the region's surviving historic engineering works and industrial resources.

Compiler: Gray Fitzsimons and Kenneth Rose, Editors

**DESCRIPTION:** The village of Alverton straddles Route 981 and the extant coke ovens are located along the former Pennsylvania Railroad line, in the extreme southeast section of the town. The coke works includes a few of the early beehive bank coke ovens, and eight single by-pass beehive ovens constructed in 1977. The coke works also contains a tipple, conveyor, and a coal screening plant, dating from as early as the 1940s. Some of coal used at this coke works was obtained from a strip mine to the north and east of the coke ovens. The three extant bank beehive ovens are severely deteriorated and have brick fronts and stone retaining walls. The beehive ovens built in 1977 are of concrete-block, steel-frame, and yellow refractory-brick construction. A pair of ovens shares one yellow-brick chimney stack. Each oven is 9' wide and 15' long. These ovens were charged from the top and unloaded through the fronts. The steel-frame screening plant and tipple probably date from the 1940s.

In addition to the coke ovens, tipple, and conveyors the site includes a building once used as an office. This one-and-one-half-story building contains common-bond red-brick walls, a gable roof, a small gable roof dormer, and two front doors (one of which is covered over); the former office has been remodeled for residential use.

The village of Alverton retains seven company-built houses. The company store and other houses either burned or were demolished. The surviving company-built houses are situated along a curving road on the north side of Route 981. These residences are two-story wood-frame buildings that may date from the 1880s. Each is a double house with a gable roof and central brick chimney, and rests on a rubble stone foundation. These houses are considerably narrower than other double houses in the region's coal patch towns. Each measures about 20' x 12'. These houses have been altered with asphaltic or metal siding replacing the original clapboard siding, and many of the original two-over-two-light double-hung sash windows have been replaced.

The most architecturally impressive building in Alverton is the hotel. Located on Route 981, it is one of the few buildings of its kind found in the region's numerous small coal towns. The two-story building measures 58' x 24' and was built about 1900. It has common-bond red-brick walls, a hipped roof covered with asphalt, a brick chimney, and a stone foundation. The building appears to have had two bays added to the north of the original five bays. A number of changes have been made to the building since it was converted to an apartment in the 1930s. The bar from the first floor was removed and the front porch was taken off; however, it retains its arched windows with double brick voussiors and stone sills; new windows have also been installed.

**HISTORY:** The village of Alverton, about 2 miles west of Mount Pleasant, witnessed the opening of two mines and coke works in 1878. One of these operations, called Donnelly, was established on the southeast side of town. The firm of Donnelly and Dillinger probably began this operation; however, it was soon acquired by the McClure Coke Company, which owned the second of Alverton's mines and coke works, called Mayfield, located west of town. The McClure Coke Company, led by J. P. Brennan, opened a second Donnelly mine by the early 1880s. By the late 1880s the two Donnellys were annually producing over 112,000 tons of coal and 75,000 tons of coke, with 200 beehive coke ovens in operation. About 160 men and boys were employed at the Donnellys. At the same time the Mayfield mine was producing about 35,000 tons of coal, while its coke works, containing fifty-five beehive ovens, was producing over 20,000 tons of coke. About forty persons were employed at the Mayfield mine and coke works.

All of these properties were acquired by the H. C. Frick Coke Company in 1895. Frick renamed the Donnelly operation Alverton No. 1 and Mayfield was called Alverton No. 2. Frick's Alverton No. 1 continued as the larger of the two mines and coke works: its production figures in 1900 amounted to more than 100,000 tons of coal extracted, and 72,000 tons of coke produced from 252 beehive ovens. Frick employed 224 persons at Alverton No. 1. Its counterpart, Alverton No. 2, produced only 35,000 tons of coal and 23,000 tons of coke,

from 104 coke ovens, in 1900. This mine and coke works employed 100 men and boys. About a decade later Frick closed Alverton No. 2. At this time there were about 400 people living in the company-owned houses at Alverton.

By 1915 Alverton No. 1 was also idle. However, following the reopening of No. 1 the following year, the H. C. Frick Coke Company reorganized a number its mines in East Huntingdon Township. The company appointed H. G. Brown as general superintendent of Alverton. (Brown also superintended the nearby Central mine and coke works and Southwest No. 3 near Tarrs.) By the end of the First World War Alverton was annually producing only modest amounts of coal (about 80,000 tons in 1918, compared to many of the other Frick operations in the region that regularly produced 150,000 to 300,000 tons of coal each year). By 1923 Alverton No. 1 produced less than 60,000 tons of coal; the coke works was abandoned. The following year Frick ceased mining at Alverton.

About 1950, Oliver K. Painter of Mount Pleasant leased the abandoned coke works at Alverton from the Frick Coke Company. Painter subsequently formed the Alverton Coke Company and purchased the Alverton property, as well as the abandoned coke works at Donnelly. The Alverton Coke Company operated about seventy beehive coke ovens at the two sites, employing fifteen workers. The two small coke works produced between 1,500 and 2,000 tons of coke each month. (Coke sold for \$60 a ton during this decade.)

Painter's coke ovens at Alverton and Donnelly were the last active beehive ovens in Pennsylvania in the 1970s. Having been built about sixty years earlier, these ovens were in need of constant repair. Painter hired inventor James E. MacDonald of Latrobe to design a more efficient coke oven that would replace the pollution-producing beehive ovens. The result was the MacDonald Smokeless Sole-Heated Non-Recovery Coke Oven, a design with two coking chambers each 9' wide and 15' long. A prototype oven, costing \$60,000, was completed at Alverton in October 1974. The other seven ovens were completed by 1977. (Painter abandoned operations at Donnelly and its old beehive coke ovens were demolished.) The Alverton Coke Company continued operating the eight newly built ovens at Alverton until 1983, when the Pennsylvania Department of Environmental Resources concluded that the ovens were unable to meet clean air standards. They have been abandoned since 1983.

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